Commentary on "A National Longitudinal Study of the Psychological Consequences of the September 11, 2001 Terrorist Attacks: Reaction, Impairment, and Help-Seeking"

Responses to Trauma: Normal Reactions or Pathological Symptoms

Steven M. Southwick and Dennis S. Charney

"A National Longitudinal Study of the Psychological Consequences of the September 11, 2001, Terrorist Attacks: Reactions, Impairment and Help-seeking" raises a number of important questions for the field of traumatic stress. Should indirect trauma be included with directly experienced trauma in Criterion A of DSM PTSD? When does a "stress reaction" become pathological? That is, where do we draw the line between normal and pathological responses to trauma? How should DSM deal with stress symptoms that do not meet criteria for PTSD? When should individuals who have been exposed to trauma be referred for psychological treatment? What therapies are appropriate for recently traumatized individuals and when should these treatments be delivered and by whom?

First, should traumas that are experienced indirectly be included in Criterion A? In this study, none of the participants was directly involved in the terrorist attacks of 9/11/2001. They were neither traumatized themselves nor did they directly witness trauma to another person. Instead, all subjects heard about or viewed the tragic events from secondhand sources such as the media. Unlike DSM III, Criterion A of DSM IV includes being "confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others." Being "confronted with" includes hearing about but not witnessing. Richard McNally (2003) has referred to this expanded definition of trauma as "conceptual bracket creep" where secondhand exposure and direct experience are accorded the same weight in diagnosing PTSD. But is it reasonable to equate watching a family member being murdered with hearing about the sudden injury of a friend? Psychological and neurobiological responses will likely differ in the two scenarios, and housing them under one roof will "dilute" the diagnosis of PTSD, making it more difficult for researchers to characterize pathophysiological alterations that are specific to PTSD.

Second, what constitutes a normal versus a pathological response to trauma, and at what point does a reaction to stress become abnormal? This issue is an active topic of de-

Steven M. Southwick, MD, is Professor of Psychiatry at the Yale Medical School and Yale Child Study Center and Deputy Director of the Clinical Neuroscience Division of the National Center for PTSD, VA Connecticut. *Dennis S. Charney* is Chief, Mood and Anxiety Disorders Program, National Institute of Mental Health.

Address correspondence to Steven M. Southwick, M.D., VA Connecticut Health Care System, 950 Campbell Avenue, 151E, West Haven, CT 06516; E-mail: Steven.Southwick@med.va.gov

bate in clinical and research arenas. In the present study, RAND researchers assessed terrorism-related stress symptoms by asking subjects 5 questions from the 17-item Posttraumatic Stress Disorder Checklist. Symptoms included feeling upset when reminded of the terrorist attacks and the aftermath of the events, repeated disturbing memories, thoughts or dreams about the terrorist attacks and the aftermath of the events, difficulty concentrating, trouble falling asleep or staying asleep, and feeling irritable or having angry outbursts. A stress symptom that bothered the subject "quite a bit" or "extremely" was classified as "substantial." "Substantial stress reactions" were defined as one or more "substantial stress symptoms." In other words, being bothered "quite a bit" by having difficulty concentrating or by having difficulty falling asleep or staying asleep was enough to include a subject in the "substantial stress reaction" group, with the implication that such a response was pathological. Does this definition make sense? In our opinion this definition does not differentiate subjects with and without clinically meaningful stress responses.

Third, the authors note that North and Pfefferbaum (2002) emphasize the importance of recognizing "sub-threshold" trauma-induced psychological symptoms that do not meet criteria for PTSD. Many trauma survivors suffer with trauma-related symptoms that tend to go unacknowledged and untreated primarily because these symptoms do not meet full DSM criteria for an Axis I disorder. Clearly, this is an important issue for psychiatry and for the field of traumatic stress. In the present report, the authors correlated continued emotional upset 7 to 9 weeks following September 11, 2001, with measures of behavioral change. This is a useful strategy that helps to characterize the impact of these "sub-threshold" trauma-related symptoms. However, choosing behavioral variables that are clearly related to emotional distress is complicated, and when using correlations to characterize the impact of symptoms it is important to consider the issue of causality. For example, consider the relationship between continued emotional distress and talking with family and friends about terrorism-related thoughts and feelings. If the two are positively correlated, it could mean that high emotional stress leads to greater talking with family and friends or it could mean that the more one talks with family and friends about terrorism-related thoughts and feelings, the more emotionally distressed one becomes. Obviously, each interpretation holds very different implications for understanding the effects of trauma and for recommending appropriate interventions.

The majority of individuals with persistent stress in the present study did not receive counseling or educational information designed to help them cope with terrorism-related fears and concerns. The authors imply that this was unfortunate, since "having the opportunity to discuss concerns and fears about terrorism with a primary care clinician, mental health provider, member of the clergy or other counselor may be particularly useful for individuals with persistent distress at a time when many report feeling uncomfortable talking with friends and family about the terrorist attacks." However, we wonder how many of the subjects in this study with "persistent distress" were affected enough to actually benefit from interventions delivered by medical personnel?

When and how to intervene with individuals who have been psychologically traumatized has recently become a burning issue for the field of traumatic stress. A number of studies have begun to question the efficacy of psychological debriefing in the immediate aftermath of trauma. In particular, some studies have shown that debriefing which involves trauma recall accompanied by psychological and physiological arousal can be harmful (Bisson, McFarlane, and Rose 2000). Unfortunately, at this point in time, very little is known about how best to assist recently traumatized individuals. The authors rightly point out that individuals who receive prescription medication to cope with terrorism-related fears clearly represent one population to target for counseling and/or education. The

authors also point out the importance of effective risk communication.

The question of how much to talk about trauma and to whom is also a critical issue raised by the present study. Many clinicians and researchers assume that talking about one's traumas to family and friends (social sharing) will reduce the likelihood of developing PTSD. For example, Schatzow and Herman (1989) have recommended that survivors of domestic violence disclose traumatic experiences to sensitive and receptive family members, and Allen (1995) has suggested that the "universal presciption for trauma" is to "talk about it with any trusted person who will listen" and "the sooner the better." However, other researchers have reported that repeated sharing of important negative experiences may reactivate emotional distress and enhance long-term recall. These findings are consistent with a large body of data showing that emotional arousal increases epinephrine and norepinephrine that are known to enhance encoding and consolidation of memory. In a recent study of Gulf War veterans, we found that degree of social sharing about traumatic experiences in the Gulf War was unrelated to severity of PTSD-related symptoms but was positively associated with level of depressive symptoms (Southwick, Morgan, and Rosenberg, 2000).

Clearly, the impact of social sharing and therapies focused on remembrance and interpretation vary from one traumatized individual to the next. It is likely that some people will be become more symptomatic by talking about their traumas while others will benefit by talking as they attempt to metabolize, process, and extinguish their painful experiences. Currently, we are conducting a study of trauma vulnerability and resilience in former American prisoners of war. Thus far, we have found that some former POW's find it useful to talk on a regular basis about their traumatic episodes while others rarely discuss their war experiences because doing so causes considerable distress. In the case of talking about one's trauma, it appears that "one size does not fit all." As with other psychological interventions, effective treatment for trauma-induced symptoms depends on informed treatment matching.

While the present report raises important questions for the field of trauma stress, in our opinion the epidemiological and clinical implications of this study are limited, primarily because the questions used to assess stress and behavioral reactions were insufficient and because subjects were grouped and analyzed using a definition of "persistent emotional stress" that has minimal research or clinical utility. As a result, the study's message about emotional distress across the country appears to be inflated. It is even possible that most of the reactions described in this report represent normal rather than pathological responses to an abnormal situation.

Longitudinal studies in the health sciences are of great importance for understanding the natural history of disorders and diseases and for planning effective treatment interventions. However, these studies are difficult to conduct and require considerable resources, expertise, and persistence. While we clearly have reservations about methodological issues in the present study, we do recognize the contribution made by the RAND research group. Along with studies by Silver et al. (2002) and others, RAND researchers have alerted us to the reality that terrorist-related activities affect individuals both near to and far from the scene of an actual trauma and that mental health resources in public health planning for responses to disasters and terrorism are clearly important. The authors have also reminded us that the field of traumatic stress must continue to grapple with critical issues related to acute psychological trauma, including the definition of Criterion A; the distinction between normal and pathological responses to trauma, categorization and treatment of stress reactions that do not meet criteria for Acute Stress Disorder or Posttraumatic Stress Disorder but that nevertheless cause functional impairment; and what therapies are appropriate for which group of trauma survivors and when and by whom these therapies should be delivered.

REFERENCES

Allen, J.G. (1995). *Treatment Approaches in Coping with Trauma: A Guide to Self Understanding.* Washington, DC: American Psychiatric Press.

Bisson, J.I., McFarlane, A.C., and Rose, S. (2000). Psychological debriefing. In E.B. Foa, T.M. Keane, and M.J. Friedman (Eds), *Effective treatment for PTSD* (pp. 39-59). New York: Guilford Press.

McNally, R.J. (2003). *Remembering Trauma.* Cambridge, MA: Belknap Press of Harvard University Press.

North, C.S., and Pfefferbaum, B. (2002). Research on the mental health aspects of terrorism. *Journal of the American Medical Association, 288*(5), 633-636.

Schatzow, E., and Herman, J.L (1989). Breaking secrecy: Adult survivors disclose to their families. *Psychiatric Clinics of North American,* 12, 337-349.

Silver, R.C., Holman, E.A., McIntosh, D.N., Poulin, M., and Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September ll. *Journal of the American Medical Association, 288,* 1235-1244.

Southwick, S.M., Morgan III, C.A., and Rosenbert, R. Social sharing of Gulf War experiences: Association with trauma-related psychological symptoms. *Journal of Nervous and Mental Disorders* 188, 695-700.